

02.03-06/20/95-01314



OHM Corporation

I hereby certify that the equipment (materials) (articles) shown and measured on this
specification is that proposed to be incorporated into Contract Number N64270-93-D-3032
3032, is in compliance with the Contract drawings and specifications to the best
of my knowledge, can be installed in the allocated space, and is submitted to
you for your approval. Government approval of proposed variation, if any, is
not warranted.

Reviewed by Submittal Reviewer

Date 6/29/95

Reviewed by QC Manager

Date 6/29/95

**EXCAVATION AND MATERIALS HANDLING PLAN
FOR
TIME-CRITICAL REMOVAL ACTION
OPERABLE UNIT 01, SITE 16
MARINE CORPS AIR STATION
CHERRY POINT
NORTH CAROLINA**


Prepared for:

**DEPARTMENT OF THE NAVY
Contract No. N64270-93-D-3032
Delivery Order 0063**

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OHM Project 16874EMHP

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1.0 INTRODUCTION

This plan has been prepared in accordance with Section 02222, paragraph 1.4.2.1 of the 100 percent Design Documents dated March 1995, prepared by Halliburton NUS. The following sections describe the phases of dealing with contaminated soils excavated during the time-critical removal of debris at Operable Unit 01, Site 16 located on the Marine Corps Air Station at Cherry Point, North Carolina.

2.0 PRE-EXCAVATION ACTIVITIES

This section describes the activities that must be completed prior to beginning excavation activities and provides guidance for protection of any monitoring wells.

2.1 PRELIMINARY ACTIVITIES

No excavation of contaminated soil may commence until the Erosion and Sedimentation Control Plan has been implemented. Clearing and grubbing of the area will be held to a minimum, to limit the disturbance of the wetlands.

All storage/temporary support structures should be in-place prior to excavating contaminated soil. The only exception anticipated is the excavation of asbestos contaminated soil to allow for a spur to be constructed for access to the debris piles. This soil will be excavated and loaded directly into certified hazardous waste hauling trucks for transportation to the selected disposal facility.

Prior to excavation, OHM's Site Superintendent will stake out the excavation areas shown on the contract drawings. These areas will be inspected by the NTR and field adjusted if necessary.

All borrow material will be obtained on base. Both topsoil and borrow areas will be identified and sampled prior to excavation activities. Once verification that the borrow material is acceptable for use on-site, it will be stockpiled at strategic points within the areas to be excavated.

2.2 MONITORING WELLS

Monitoring wells in the work areas will be protected from damage. All employees will be notified of the presence and importance of these wells. Safety fences and/or flagging will be placed around monitoring wells located adjacent to work areas. From the contract drawings, no monitoring wells are indicated within the excavation limits as shown. Should excavation be extended to areas containing monitoring wells, OHM would recommend establishing restoration and protection guidelines through Halliburton NUS, engineer of record for this project.

3.0 SOIL REMOVAL

This section outlines the steps to be followed when excavating the contaminated soils.

3.1 EXCAVATION ACTIVITIES

Excavation permits will be coordinated through the NTR. Prior to the scheduling of excavation activities, a 48-hour notice of intent to excavate will be given to the NTR.

Continuous monitoring during excavation activities will be performed by the on-site Health and Safety Officer or his designee with an instrument capable of detecting organic vapors at levels of 1 ppm. All on-site monitoring will follow and comply with limits established in the Site-specific Health and Safety Plan. Operation of all equipment will strictly adhere to OHM's Operation's Procedures located in the Site-specific Health and Safety Plan.

The designated debris pile in an area to be excavated will be removed prior to commencement of excavation activities for that area. A Case 580 backhoe (or equal), post-track ND-70 tractor (or equal), or similar equipment will excavate and loadout asbestos contaminated soils directly into certified hazardous waste hauling trucks for transport to the selected disposal facility. Contaminated soils, excluding those contaminated with asbestos, will be stockpiled and tested for appropriate disposal options. All soils containing asbestos will be excavated by the asbestos abatement subcontractor and directly loaded into roll-off containers provided by OHM for transport to an approved landfill. All soils containing only TPH and/or lead contamination will be excavated by OHM's on-site personnel.

The excavation activities should begin at the most remote point from the access road and proceed to the closest point to prevent cross contamination of "clean" excavated areas. The perimeter of each excavated area will be marked to prevent accidental entry. Excavation of multiple areas may be conducted concurrently. Excavation will be to the depth of 1 foot or when groundwater is encountered, whichever occurs first. No dewatering activities are permitted. Any over excavation needed for equipment clearances and/or utilities will be coordinated through the NTR.

Stockpiling of fill material along side of the excavation area is permissible. Stockpiles should be graded to provide positive drainage away from the excavated areas. Should weather conditions indicate the need to backfill the excavation area prior to receipt of confirmation sample results, the NTR will be consulted for direction and approval to backfill.

Some hand excavation may be required, due to the close proximity of flora that is not to be disturbed. Hand excavated materials will be stockpiled or directly loaded for transport.



3.2 ACCESS/EGRESS OF VEHICLES IN EXCLUSION ZONES

Vehicles leaving Exclusion Zones (EZs) will be decontaminated at the decontamination pad either by dry brushing and/or pressure washing as conditions indicate the need. Decontamination procedures will follow those set forth in the Site-specific Health and Safety Plan.

3.3 CONFIRMATION SAMPLING AND ANALYSIS

Confirmation sampling will start immediately upon completion of excavation of each area. Samples will be taken from the sidewalls and bottom of the pits as specified in the Contractor's Sampling and Analysis Plan. OHM's Project Chemist will ship samples to an approved analytical laboratory. The analytical results will be compared with established removal goals and a copy of same will be provided to the NTR. Upon direction from the NTR, OHM will either continue excavation at a rate approved by the NTR or OHM will immediately backfill the area.

4.0 BACKFILLING AND GRADING ACTIVITIES

This section describes backfilling activities and topsoil spreading.

4.1 BACKFILL AND GRADING (SITE TO SUBGRADE)

Backfill will be excavated from an approved borrow pit on base and loaded directly into dump trucks for transportation to Site 16.

Prior to backfill and grading, all equipment will be decontaminated at the vehicle decontamination pad. A D-4 Bulldozer (or equal) will be used to backfill the excavations and prepare the subgrade. Backfill of areas will only begin upon approval of confirmation sample results by the NTR. Surplus material generated during site grading activities may be used to backfill the lower portion of excavated areas when approved by the NTR. In some areas it may, due to proximity of flora, be impossible to compact the backfill; however, backfill should be applied in lifts no greater than 6 inches.

4.2 TOPSOIL

Topsoil will be applied to a depth of 4 inches on all disturbed wetland areas by a D-4 Bulldozer (or equal). Hand spreading of topsoil may be required to ensure root coverage of remaining flora. The topsoil will contain 5 to 20 percent organic matter, 25 to 50 percent silt, 10 to 50 percent clay, and 20 to 35 percent sand, with a maximum particle size of 3/4-inch. Planting and seeding and mulching activities should follow the application of topsoil as quickly as feasible.

5.0 HANDLING OF CONTAMINATED SOILS

This section describes the loadout phase of the excavation activity.

5.1 CHARACTERIZATION OF STOCKPILES

Stockpiled soil will be characterized in accordance with the Contractor's Sampling and Analysis Plan (CSAP) for disposal options. Stockpiles will be gridded and samples obtained from various grids for compositing as indicated in the CSAP.

Once soil has been properly profiled and accepted by the disposal facility of choice, appropriate paperwork will be prepared for a representative of the Environmental Affairs Department to review and sign. After all paperwork is complete, loadout activities may commence.

5.2 HANDLING OF CONTAMINATED SOILS

Handling of all contaminated soils and operation of equipment will adhere to methods and procedures set forth in the Site-specific Health and Safety Plan and in Section 3.0 of the Work Plan entitled, Handling, Transportation and Disposal.

Loadout of TPH and lead contaminated soils will be accomplished with the use of a backhoe and excavator. Soils will be loaded into dump trucks and transported from the site to selected facilities.

Asbestos contaminated soils will be directly loaded into roll-off containers and transported to the designated facility.

5.3 EGRESS OF VEHICLES FROM THE SITE

All transporters will be visual inspected prior to leaving the site to assure that tarps are securely fastened and no waste materials and/or spillage is adhering to sides or wheels.

Appendix A

Air Station Order 11010.1E